CLAIMS

What is claimed is:

1. A reflector for a precision optical device, comprising:

a reflective surface;

a back surface;

a thickness between said reflective surface and said back surface defining an edge of said reflector;

at least one mounting surface located along at least a portion of said edge of said reflector for adhesion to a portion of said precision optical device; and

a mounting pin extending from another portion of said edge of said reflector for adhesion within a hole in said precision optical device.

2. A reflector as recited in claim 1, said at least one mounting surface being at least one mounting pad.

3. A reflector as recited in claim 2, said at least one mounting pad comprising first and second mounting pads, said first mounting pad located along a first portion of said edge of said reflector and said second mounting pad located along a second portion of said edge of said reflector.

4. A reflector as recited in claim 3, said first and second mounting pads located along a common edge of said reflector.

5. A reflector as recited in claim 4, said another portion of said edge of said reflector being opposite said common edge of said reflector.

6. A reflector as recited in claim 4, said first and second mounting pads being co-planar.

7. A reflector as recited in claim 4, said first and second mounting pads extending from said common edge in such manner as not to touch each other and have a portion of said common edge located therebetween.

8. A reflector as recited in claim 1, said reflective surface being optically flat.

9. A reflector as recited in claim 2, said reflector, said at least one mounting pad and said mounting pin made of the same material.

10. A reflector as recited in claim 9, wherein said material is quartz.

11. A precision optical device, comprising:

first and second side panels, said first side panel having a hole formed therein;

a first reflector comprising a first reflecting surface and a mounting pin extending from a first edge of said first reflector, said mounting pin received within said hole formed in said first side panel for mounting said first reflector between said panels at a first end of said panels; and

a second reflector comprising at least a second reflecting surface, mounted between said side panels at a second end thereof in an orientation so that an incident light ray reflecting off of any of said reflecting surfaces is reflected to and off the other(s) of said reflecting surfaces in a direction substantially parallel to said incident light ray.

12. A precision optical device as recited in claim 11, said first reflector further comprising at least one mounting pad extending from at least a second edge thereof for mounting said first reflector to said device.

13. A precision optical device as recited in claim 12, said at least one mounting pad comprising first and second mounting pads.

14. A precision optical device as recited in claim 13, said first mounting pad located along said second edge of said first reflector and said second mounting pad located along a third edge of said first reflector.

15. A precision optical device as recited in claim 14, wherein said second and third edges of said first reflector define a common edge of said first reflector.

16. A precision optical device as recited in claim 15, said first edge of said first reflector being opposite said common edge of said first reflector.

17. A precision optical device as recited in claim 15, said first and second mounting pads being co-planar.

18. A precision optical device as recited in claim 15, said first and second mounting pads extending from said common edge in such manner as not to touch each other and have a portion of said common edge located therebetween.

19. A precision optical device as recited in claim 18, wherein said common edge of said first reflector does not touch said precision optical device when said first reflector is mounted to said precision optical device.

20. A precision optical device as recited in claim 11, said second reflector comprising a roof mirror assembly, comprising substantially, mutually perpendicular reflecting panels.

21. A precision optical device as recited in claim 20, wherein said first reflector is mounted to said device substantially perpendicular to said reflecting panels of said roof mirror so that a direction of said light ray after reflecting off of said roof mirror and said first reflector is opposite to a direction of said incident light ray.

22. A precision optical device as recited in claim 11, said second reflector further comprising a mounting pin for receipt within a hole formed in said second panel for mounting said second reflector between said panels.

23. A precision optical device as recited in claim 22, wherein when said second reflector is mounted between said panels said second reflecting surface is substantially parallel to said first reflecting surface of said first reflector so that a direction of said light ray after reflecting off of said first reflector and said second reflector is substantially the same as a direction of said incident light ray.

24. A precision optical device as recited in claim 23, said mounting pin configured to fit snugly into said hole.

25. A precision optical device as recited in claim 11, said mounting pin configured to fit snugly into said hole.

26. A precision optical device as recited in claim 11, wherein all components of said device are made of the same material.

27. A precision optical device as recited in claim 26, wherein said material is quartz.

28. A mounting assembly for a reflector for a precision optical device, comprising:

a reflector, comprising:

a reflective surface;

a back surface;

a thickness between said reflective surface and said back surface defining an edge of said reflector; and

at least one mounting surface located along at least a portion of said edge of said reflector for adhesion to a precision optical device; and

a mounting pin to be adhered to a second mounting surface of said edge of said reflector for adhesion within a hole in said precision optical device.

29. A mounting assembly as recited in claim 28, said at least one mounting surface being at least one mounting pad.

30. A mounting assembly as recited in claim 29, said at least one mounting pad comprising first and second mounting pads, said first mounting pad located along a first portion of said edge of said reflector and said second mounting pad located along a second portion of said edge of said reflector.

31. A mounting assembly as recited in claim 30, said first and second mounting pads located along a common edge of said reflector.

32. A mounting assembly as recited in claim 31, said second mounting surface of said edge of said reflector being opposite said common edge of said reflector.

33. A mounting assembly as recited in claim 31, said first and second mounting pads being co-planar.

34. A mounting assembly as recited in claim 31, said first and second mounting pads extending from said common edge in such manner as not to touch each other and have a portion of said common edge located therebetween.

35. A mounting assembly as recited in claim 28, said reflective surface being optically flat.

36. A mounting assembly as recited in claim 29, said reflector, said at least one mounting pad and said mounting pin made of the same material.

37. A mounting assembly as recited in claim 36, wherein said material is quartz.